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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/727,403 | 11/30/2000 | Richard T. Minner | 23087-703 | 2419 |

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| EXAMINER |
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QUILLEN, ALLEN E

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| ART UNIT | PAPER NUMBER |
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2676

DATE MAILED: 02/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/727,403

Applicant(s)

MINNER ET AL. 

Examiner

Allen E. Quillen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 2, 9 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "inductive image generation" is vague, lacks specificity and fails to describe the invention.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by DeAguiar, et al, U.S. Patent Re. 36,145 (U.S. Patent 5,263,136).

5. Regarding claim 1, representative of claims 8 and 9, DeAguiar discloses a method and a computer system for interactively viewing and editing a digital image on a computer system (Figure 6, Column 1, Lines 21-29; Column 7, line 16 through Column 8, line 14) comprising the steps of storing an archival digital image in the computer system (Figure 6, elements 160, 162, 188; Column 2, lines 14-15, 50-65; *past usage*, Column 3, lines 11-18); maintaining in the

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computer system a state list, characterizing a sequence of image-editing operations to be applied to the archival digital image in order to generate a current edited rendition of the digital image (Column 3, lines 55-58; Figures 8, 14, Column 8, line 58 through Column 10, line 27); maintaining in the computer system a set of viewing data, characterizing the resolution (Column 8, line 66), offset (Column 10, lines 38-40) and extent at which to view the current edited rendition of the digital image (Column 14, lines 17-27); maintaining in the computer system a cache of image tiles comprising portions of views of edited renditions of the archival digital image (see above; Abstract; Column 2, line 57; Column 4, lines 19-26; Figure 12, element 404, Column 14, line 53 through Column 15, line 11); and thereafter updating, in response to image-viewing and image-editing instructions, the viewing data and the state list accordingly, and assembling in the image tile cache, by inductive image generation and in response to image-viewing and image-editing instructions, a set of image tiles sufficient to generate the current view of the current edited rendition of the archival digital image (Column 6, lines 55-64; Column 11, lines 6-7, 44-50); including a digital video display (Column 1, line 22; Figure 6, elements 154, 172), a digital video memory buffer (see above, Column 7, lines 29-35); a user input device and module operative to receive signals from the user-input device and translate them into image-viewing and image-editing instructions (see above, Figure 6, elements 156, 158; Column 1, lines 25-29; Column 7, lines 1-7, 33-35); an application module, operative (Column 4, lines 33-36) to receive image-viewing and image-editing instructions from the user-input module, and to update the viewing data and the state list in response to the image-viewing and image-editing instructions (see above; Column 13, lines 47-49), and to assemble in the system's tile cache, by inductive image generation and in response to the image-viewing and

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image-editing instructions, a set of image tiles sufficient to generate the current view of the current edited rendition of the archival digital image, and to copy the set of image tiles sufficient to generate the current view of the current edited rendition of the archival digital image into the computer system's video display buffer so as to generate the current view of the edited rendition of the archival digital image (see above).

6. Regarding claim 2, representative of claim 3, DeAguiar discloses a method of claim 1 wherein said inductive image generation, for each tile in the set of image tiles, comprises: a) locking the tile in the tile cache when it is ascertained that the tile is in the tile cache (Column 13, line 43-47; Figure 14); b) generating the tile from the image file, copying the generated tile into the tile cache (Column 22, lines 40-45), and locking the copied tile in the tile cache when it is ascertained that a current image state is an initial unedited state (Column 11, lines 57-59; 63-67); and c) ascertaining, when the tile is not in the tile cache or when the current image state is not in the initial unedited state, a set of supplier tiles in a prior state sufficient so that the tile can be generated from the set of supplier tiles by application of the image-viewing and image-editing instructions (Column 22, lines 36-41), and c2) assembling the set of supplier tiles (Column 22, lines 1-36), and c3) applying the image-viewing and image-editing instructions to the set of supplier tiles so as to generate the tile and copying the generated tile into the tile cache, and locking the copied tile in the tile cache (see above); including supplier tiles (see above, Figure 7, Column 8, lines 15-67).

7. Regarding claim 4, representative of claim 5, DeAguiar discloses a method of claim 2 wherein assembling the set of supplier tiles of a tile in the set of image tiles comprises: a) ascertaining the region in the prior state from which the tile in the set of image tiles is generated (Column 1, line 50; Column 3, line 33-58), and b) ascertaining the set of prior-state tiles intersecting the region (Figure 7, Column 8, lines 15-40), and c) assembling all the supplier tiles in the set (see above).
8. Regarding claim 6, DeAguiar discloses a method of claim 1 wherein the image-viewing instructions specify the extent of the view of the current edited rendition of the digital image by explicitly identifying the tiles to be viewed (see above, Figures 15A-15C; Figure 20, elements 822, 826; Column 17, lines 21-32; Column 19, lines 3-35; Column 25, lines 50-65).
9. Regarding claim 7, DeAguiar discloses a method of claim 1 wherein the image-viewing instructions specify the extent of the view of the current edited rendition of the digital image by identifying the region to be viewed, whereupon the addresses of all tiles intersecting the region are computed (see above, Figure 7, Column 8, lines 18, 35-37).
10. Regarding claim 10, DeAguiar discloses a computer system of claim 9 wherein the computer system comprises a plurality of computers connected by a network (see above, Figure 6, elements 164, 178, Column 7, lines 41-50; Claims 23, 28, 33, 38).

11. Regarding claim 11, DeAguiar discloses a computer system of claim 10 wherein the network is the Internet (see above, Figure 6, elements 164, 178, Column 7, line 45, *TCP/IP*; Claims 19, 24, 29, 39)

12. Regarding claim 12, DeAguiar discloses a computer system of claim 10 wherein the electronic digital-data storage device, the state list, the set of viewing data, and the cache of image tiles reside in a first server computer, and wherein the video digital display device, the digital video memory buffer, the user-input devices, and the user-input module reside in a second client computer, and wherein the application module is partitioned into a server application sub-module resident in the server computer and a client application sub-module resident in the client computer (see above, Figure 6, elements 164, 178, Column 7, line 45, *TCP/IP*, *FTP*, *Telnet*).

13. Regarding claim 13, DeAguiar discloses a computer system of claim 12 wherein the client application submodule is operative: to receive image-viewing and image-editing instructions from the user-input module, and to transmit the image-viewing and image-editing instructions to the server application submodule (see above, Figure 6, elements 164, 178, Column 7, line 45, *TCP/IP*, *FTP*, *Telnet*).

14. Regarding claim 14, DeAguiar discloses a computer system of claim 12 wherein the server application submodule is operative: to receive image-viewing and image-editing instructions from the client application submodule, and to update the viewing data and the state

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list accordingly, and to assemble in the tile cache, by inductive image generation and in response to image-viewing and image-editing instructions, a set of image tiles sufficient to generate the current view of the current edited rendition of the archival digital image, and to transmit the set of image tiles to the client application submodule (see above, Figure 6, elements 164, 178, Column 7, line 45, *TCP/IP, FTP, Telnet*).

15. Regarding claim 15, DeAguiar discloses a computer system of claim 12 wherein the client application submodule is operative: to receive image tiles sufficient to generate the current view of the current edited rendition of the archival digital image transmitted from the server application submodule, and to copy the set of image tiles sufficient to generate the current view of the current edited rendition of the archival digital image into the computer system's video display buffer so as to generate the current view of the edited rendition of the archival digital image (see above, Figure 6, elements 164, 178, Column 7, line 45, *TCP/IP, FTP, Telnet*).

16. Regarding claim 16, DeAguiar discloses a computer system of claim 12 additionally comprising a second cache of image tiles residing in the client computer (see above, Figure 6, elements 164, 178, Column 7, line 45, *TCP/IP, FTP, Telnet*).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen E. Quillen whose telephone number is (703) 605-4584.

The examiner can normally be reached on Tuesday – Friday, 8:30am – noon and 1:00 - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew C. Bella, can be reached on (703) 308-6829.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or FAX'd to:

(703) 872-9314 (for Technology Center 2600 only)

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Sixth Floor (Receptionist), Arlington, Virginia

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number (703) 305-9600 or (703) 305-3800.

Allen E. Quillen
Patent Examiner
Art Unit 2676

February 22, 2003


**MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**